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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/079,102 | 02/19/2002 | Kenneth J. Wayne | 10011474-1 | 6062 |

7590 03/22/2005

AGILENT TECHNOLOGIES, INC.
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Intellectual Property Administration
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| EXAMINER |
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WUJCIAK, ALFRED J

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| ART UNIT | PAPER NUMBER |
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3632

DATE MAILED: 03/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/079,102

Applicant(s)

WAYNE, KENNETH J.

Examiner

Alfred J Wujciak III

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 November 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15, 17 and 18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5, 11-13 and 15-17 is/are rejected.
- 7) ☒ Claim(s) 6-10, 14 and 18 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 08 March 2004 is: a) ☒ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2. 6) ☐ Other:

DETAILED ACTION

This is the first Office Action for the serial number 10/079,102, LOW COST OPTOMECHANICAL MOUNT FOR PRECISELY STEERING/POSITIONING A LIGHT BEAM, filed on 11/8/02.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-5, 11 and 13 are rejected under 35 U.S.C. 102(e) as being anticipated by US Patent # 6,078,440 to Ueyama.

Ueyama teaches an optomechanical system (figure 11) comprising a sphere (15) adapted to contain an optical element (11). The system includes a first set of curved surfaces (26, located on top side of element 20 in figure 11) and a second set of curved surface (26, located on the bottom side of element 20 in figure 11) in contact with the sphere. Each member of the first set of curved surfaces contacts the sphere at approximately just one point and each member of the second set curved surface contacts the sphere at approximately just one point. Each member of the first set of curved surfaces is a ball and each member of the second set of curved surfaces is a

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ball. Each ball in the first set of balls has a corresponding ball in the second set of balls wherein each ball in the first set applies a force to the sphere that is collinear with and opposite to a force that corresponding ball in the second set applies to the sphere. The system comprises a housing (20) adapted to receive the sphere, first and second set of balls. The first set of curved surfaces comprises three curved surface (the downward edge part that touches the sphere, adjacent to element 26 and element 26 on the top side of element 20) and the second set of curved surfaces also comprises three curved surfaces (upward edge part that touches the sphere, adjacent to element 26 and element 26 on lower part of element 20). The sphere includes an opening (locate where element 40 is mounted thereon) adapted insertion of a tool (41). The first and second set of curved surfaces so constructed, secured, and arranged such that the sphere has freedom. The system includes a force-generating member (40) for applying a force to the first and second set of curved surface for holding the sphere in a position and for resisting changes in the position of the sphere.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 12 rejected under 35 U.S.C. 103(a) as being unpatentable over Ueyama in view of US Patent # 4,552,024 to Baker et al.

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Ueyama teaches the sphere and the first and second set of curved surfaces but fails to teach the sphere and the first and second set of curved surfaces having a finishes that permit smooth rotation of the sphere. Baker et al. teaches a spheroid ball bearings (col. 3, lines 30-34) having a surface finish, it would have been obvious for one of ordinary skill in the art at the time the invention was made to have modified Ueyama's sphere, first and second set of curved surfaces with a surface finish as taught by Baker et al. to provide a smooth rotation between the sphere and curved surfaces.

Claims 15 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent # 5,800,311 to Chuang.

Chuang teaches the system (figure 2) comprising a sphere (40) having an opening shaped, a housing (11) adapted to receive the sphere, a magnet (34) attached to the housing and magnetically attracted to the sphere. The system further includes a cover (60) attached to the housing.

Chuang teaches the magnet but fails to teach plurality of magnets. It would have been obvious for one of ordinary skill in the art at the time the invention was made to have added additional magnets to the system to provide additional control of sphere using additional magnetic force thereon.

Allowable Subject Matter

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Claims 6-10, 14 and 18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

In regard to claims 6-10, the prior art fails to teach the system further comprising a lid attached to the housing to apply a downward force upon the first set of balls, sphere, and second set balls. In regard to claim 14, the prior art fails to teach the system comprises the first set of three curved surfaces comprises 3 balls and the second set of three curved surfaces also comprises 3 balls. In regards to claim 18, the prior art fails to teach the system comprises a spring attached to the cover for applying a downward force upon the sphere.

Response to Arguments

Applicant's arguments filed 11/5/04 have been fully considered but they are not persuasive.

The applicant believes that with the amended claim language "a force-generating member that applies a force to the two sets of balls for resisting changes in the position of the sphere" would overcome Ueyama's reference. The examiner disagrees with the applicant because Ueyama's invention has "a force-generating member" that applies force to the two sets of balls to resist or change the position of the sphere with the driving mechanism (40) as explained in the specification (col. 2, lines 19-22). When the drive mechanism is not moving the sphere, it resists the sphere from moving due to friction force (42). The sphere would move when the drive mechanism is being in motion for moving the sphere.

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Ueyama and Baker teach spheroid ball bearing and that the examiner is allowed to use Baker as a secondary reference for finishing surface on the ball to have modified Ueyama's ball surface with finishing to provide a smooth rotation of the ball.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

US Patent # 6,803,738 to Erten

Erten teaches a magnetic support for controlling sphere.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alfred Joseph Wujciak III whose telephone number is (703) 306-5994. The examiner can normally be reached on 8am-4:30pm.


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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leslie A Braun can be reached on 703 308 2156. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Alfred Joseph Wujciak III
Examiner
Art Unit 3632 *AWJ*

3/15/05


ANITA KING
PRIMARY EXAMINER